Mine Safety and Health Admin., Labor

Subpart C—Fire Prevention and Control

AUTHORITY: Sec. 101, Federal Mine Safety and Health Act of 1977, Pub. L. 91-173 as amended by Pub. L. 95-164, 91 Stat. 1291 (30 U.S.C. 811).

§ 57.4000 Definitions.

The following definitions apply in this subpart.

Combustible liquids. Liquids having a flash point at or above 100 °F (37.8 °C). They are divided into the following classes:

Class II liquids—those having flash points at or above 100 °F (37.8 °C) and below 140 °F (60 °C)

Class IIIA liquids—those having flash points at or above 140 °F (60 °C) and below 200 °F (93.4 °C).

Class IIIB liquids—those having flash points at or above 200 $^{\circ}$ F (93.4 $^{\circ}$ C).

Escapeway. A designated passageway by which persons can leave an underground mine.

Flash point. The minimum temperature at which sufficient vapor is released by a liquid to form a flammable vapor-air mixture near the surface of the liquid.

Main fan. A fan that controls the entire airflow of an underground mine or the airflow of one of the major air circuits of the mine.

Mine opening. Any opening or entrance from the surface into an underground mine.

Safety can. A container of not over five gallons capacity that is designed to safely relieve internal pressure when exposed to heat and has a spring-closing lid and spout cover.

[50 FR 4082, Jan. 29, 1985, as amended at 68 FR 32361, May 30, 2003; 69 FR 38842, June 29, 2004]

§ 57.4011 Abandoned electric circuits.

Abandoned electric circuits shall be deenergized and isolated so that they cannot become energized inadvertently.

§ 57.4057 Underground trailing cables.

Underground trailing cables shall be accepted or approved by MSHA as flame resistant.

[57 FR 61223, Dec. 23, 1992]

PROHIBITIONS/PRECAUTIONS/ HOUSEKEEPING

§ 57.4100 Smoking and use of open flames.

No person shall smoke or use an open flame where flammable or combustible liquids, including greases, or flammable gases are—

- (a) Used or transported in a manner that could create a fire hazard; or
 - (b) Stored or handled.

§57.4101 Warning signs.

Readily visible signs prohibiting smoking and open flames shall be posted where a fire or explosion hazard exists.

§57.4102 Spillage and leakage.

Flammable or combustible liquid spillage or leakage shall be removed in a timely manner or controlled to prevent a fire hazard.

§ 57.4103 Fueling internal combustion engines.

Internal combustion engines shall be switched off before refueling if the fuel tanks are integral parts of the equipment. This standard does not apply to diesel-powered equipment.

§ 57.4104 Combustible waste.

- (a) Waste materials, including liquids, shall not accumulate in quantities that could create a fire hazard.
- (b) Waste or rags containing flammable or combustible liquids that could create a fire hazard shall be placed in the following containers until disposed of properly:
- (1) Underground—covered metal containers.
- (2) On the surface—covered metal containers or equivalent containers with flame containment characteristics

§ 57.4130 Surface electric substations and liquid storage facilities.

The requirements of this standard apply to surface areas only.

- (a) If a hazard to persons could be created, no combustible materials shall be stored or allowed to accumulate within 25 feet of the following:
 - (1) Electric substations.

§57.4131

- (2) Unburied, flammable or combustible liquid storage tanks.
- (3) Any group of containers used for storage of more than 60 gallons of flammable or combustible liquids.
- (b) The area within the 25-foot perimeter shall be kept free of dry vegetation.

§ 57.4131 Surface fan installations and mine openings.

- (a) On the surface, no more than one day's supply of combustible materials shall be stored within 100 feet of mine openings or within 100 feet of fan installations used for underground ventilation.
- (b) the one-day supply shall be kept at least 25 feet away from any mine opening except during transit into the mine
- (c) Dry vegetation shall not be permitted within 25 feet of mine openings.

§ 57.4160 Underground electric substations and liquid storage facilities.

The requirements of this standard apply to underground areas only.

- (a) Areas within 25 feet of the following shall be free of combustible materials:
 - (1) Electric substations.
- (2) Unburied, combustible liquid storage tanks.
- (3) Any group of containers used for storage of more than 60 gallons of combustible liquids.
- (b) This standard does not apply to installed wiring or timber that is coated with at least one inch of shotcrete, one-half inch of gunite, or other non-combustible materials with equivalent fire protection characteristics.

§ 57.4161 Use of fire underground.

Fires shall not be lit underground, except for open-flame torches. Torches shall be attended at all times while lit.

FIREFIGHTING EQUIPMENT

§ 57.4200 General requirements.

- (a) For fighting fires that could endanger persons, each mine shall have—
- (1) Onsite firefighting equipment for fighting fires in their early stages; and
- (2) Onsite firefighting equipment for fighting fires beyond their early stages,

or the mine shall have made prior arrangements with a local fire department to fight such fires.

- (b) This onsite firefighting equipment shall be—
- (1) Of the type, size, and quantity that can extinguish fires of any class which would occur as a result of the hazards present; and
- (2) Strategically located, readily accessible, plainly marked, and maintained in fire-ready condition.

 $[50\ FR\ 4082,\ Jan.\ 29,\ 1985,\ as\ amended\ at\ 50\ FR\ 20100,\ May\ 14,\ 1985]$

§57.4201 Inspection.

- (a) Firefighting equipment shall be inspected according to the following schedules:
- (1) Fire extinguishers shall be inspected visually at least once a month to determine that they are fully charged and operable.
- (2) At least once every twelve months, maintenance checks shall be made of mechanical parts, the amount and condition of extinguishing agent and expellant, and the condition of the hose, nozzle, and vessel to determine that the fire extinguishers will operate effectively.
- (3) Fire extinguishers shall be hydrostatically tested according to Table C-1 or a schedule based on the manufacturer's specifications to determine the integrity of extinguishing agent vessels.
- (4) Water pipes, valves, outlets, hydrants, and hoses that are part of the mine's firefighting system shall be visually inspected at least once every three months for damage or deterioration and use-tested at least once every twelve months to determine that they remain functional.
- (5) Fire suppression systems shall be inspected at least once every twelve months. An inspection schedule based on the manufacturer's specifications or the equivalent shall be established for individual components of a system and followed to determine that the system remains functional. Surface fire suppression systems are exempt from these inspection requirements if the systems are used solely for the protection of property and no persons would be affected by a fire.